

REMARKS

Applicants appreciate the courtesy extended by the Examiner of an interview held on June 15, 2005. Conclusions of the interview are included in the following remarks.

Claim 1

Claim 1 recites selecting an orthotic from a stocked set of orthotics. This is not suggested by the cited reference to Marshall. Marshall instead discloses selecting a mold from a stocked set of molds, from which to mold an orthotic for the patient. (col. 14, line 49) Therefore, claim 1 is patentable over the cited prior art.

Claims 2-5 and 29-31

Claims 2-5 and 29-31 depend from claim 1. The limitations that they add to claim 1 distinguish them further from the prior art. Therefore, claims 2-5 and 29-31 also are patentable.

For example, claim 2 includes all of the limitations of claim 1, which is patentable over the prior art as explained above. For that reason alone, claim 2 also is patentable. However, claim 2 includes the added limitation that the predetermined number of sets of orthotics is "only three". Marshall teaches away from this number by disclosing the number of unique molds to be "some five hundred and forty or more" (col. 14, line 62). The limitation added by claim 2 thus distinguishes it further from the prior art.

Similarly, claim 5 includes all of the steps of claim 1, plus the added step of pressing the foot sole against the heat-softened orthotic while the orthotic is in a shoe. Marshall does not shape the orthotic with the foot sole as claimed, but rather with a "plaster of paris positive" of the foot (col. 8, lines 15-32) or with a mold (col. 14, line 50). Moreover, Marshall does not shape the orthotic "in a shoe" as claimed. Thus, the step added by claim 5 distinguishes the invention further from the prior art.

Similarly, claim 29 includes all of the limitations of claim 1, plus the added limitation of stocking the orthotics on a merchandise rack adjacent to a thermal imaging device. Marshall teaches away from this limitation by selecting a mold from a stocked set of molds (col. 14, line 40), which would make the claimed stocking of orthotics on a rack useless. Although the Examiner indicates that stocking orthotics on a merchandise rack is well known, it is not known to position the rack adjacent to a thermal imaging device. Thus, the step added by claim 29 distinguishes the invention further from the prior art.

Claim 6

Claim 6 recites engaging a sole of a foot against a thermal imaging device while the foot is "not in a shoe."

This is not suggested by the cited reference to Dribbon. Dribbon teaches engaging a foot against a thermal imaging insole only while the foot is "within the shoes . . . he or she normally wears" (col. 4, line 48; col. 5, line 33). This teaches away from the claimed limitation of the foot being "not in a shoe".

Moreover, modifying Dribbon's method by engaging the foot to the imaging insole while outside the shoe, as the Examiner suggests, would render it unsuitable for its intended purpose of "indication of potential problem areas . . . within the shoes or other articles of footwear he or she normally wears. This enables the physician to prescribe special inserts . . . for use within that pair of shoes . . ." (col. 5, lines 31-35). Therefore, claim 6 is patentable over the cited prior art.

Claims 7-8, 10-13 and 15-16

Claims 7-8, 10-13 and 15-16 depend from claim 6. The limitations that they add to claim 6 distinguish them further from the prior art. Therefore, claims 7-8, 10-13 and 15-16 also are patentable.

For example, claim 7 includes all of the limitations of claim 6, which is patentable over the prior art as explained above. For that reason alone, claim 7 also is patentable. However, claim 7 includes the added limitation of determining arch height. As explained below regarding claim 35, measuring arch height is not suggested by the cited reference to Dribbon, and Dribbon's orthotic is unsuitable for measuring arch height. Thus, the limitation added by claim 7 distinguishes it further from the prior art.

Claim 35

Claim 35 discloses determining an arch height of a foot sole based on a thermal image of the sole.

This is not suggested by the cited reference to Dribbon. Dribbon discloses using a thermal image only for diagnosing foot disorders such as ulcers (col. 1, lines 9-10; col. 4, lines 38-43; and col. 5, lines 14-16). Dribbon does not suggest that arch height can be determined from a thermal image as claimed.

In fact, the skilled person would consider Dribbon's imaging insole in a shoe unsuitable for measuring arch height. That is because the skilled person would think that the shoe sole under Dribbon's imaging insole (which tends to match the curvature of the foot sole) together with Dribbon's cushioning layer 14 would bring all locations of Dribbon's imaging layer 24 in equal contact with the foot sole.

Therefore, claim 35 is patentable over the cited prior art.

Claim 36-39

Claims 36-39 depend from claim 35. The limitations that they add to claim 35 distinguish them further from the prior art. Therefore, claims 36-39 also are patentable.

Claim 40

Claim 40 recites a thermal imaging device that includes a thermally sensitive material lying over a rigid surface that prevents the material from bending

The cited reference to Dribbon teaches away from this, by his thermally sensitive material 24 overlying a cushioning layer 14 that would urge the material 24 to bend to conform to the foot sole. Therefore, claim 40 is patentable over the cited prior art.

Claims 41-42

Claims 41-42 depend from claim 40. The limitations that they add to claim 40 distinguish them further from the prior art. Therefore, claims 41-42 also are patentable.

Claim 43

Claim 43 recites warming the foot with an electrical warming device before engaging it against a thermal imaging device.

This is not suggested by the cited reference to Dribbon. Moreover, the skilled person would be dissuaded from adding the claimed warming step to Dribbon's method. That is because Dribbon's method is based on sensing heat naturally generated by damaged tissue (col. 5, lines 19-22). This naturally generated heat would be masked by electrically applied heat if the claimed warming step were performed. Therefore, claim 43 is patentable over the cited prior art.

Claims 44-45

Claims 44-45 depend from claim 43. The limitations that they add to claim 43 distinguish them further from the prior art. Therefore, claims 44-45 also are patentable.

Claim 46

Claim 46 recites pre-warming a thermally sensitive material to a temperature warmer than a foot sole, and then obtaining a thermal image of the sole based on the material being cooled by the sole.

The cited reference to Dribbon does not suggest the claimed step of pre-warming the sensing material. Nor does he suggest any advantage in doing so. The advantage suggested by the Office Action "to get a higher contrast in temperature . . . to get a better change in color to better show or enhance the problems associated with the user's foot" does not apply to claim 46, because claim 46 does not address enhancing temperature difference, but instead addresses which item (the material or the foot) is hotter.

Additionally, Dribbon teaches away from the claimed step of obtaining a thermal image based on the material being cooled by the foot sole. That is because Dribbon's method is based on the extent to which hot spots (col. 5, line 14) of the foot heat a sensing material. It would be counterintuitive to instead base Dribbon's method on the extent to which hot spots cool the sensing material as the Examiner suggests.

Therefore, claim 46 is patentable over the prior art.

Claim 47

Claim 47 depends from claim 46. The limitation that claim 47 adds to claim 46 distinguishes it further from the prior art. Therefore, claim 47 also is patentable.

Claim 48

Claim 48 recites selecting an orthotic from stocked orthotics. This is not suggested by the cited reference to Marshall. Marshall instead discloses selecting a mold from stocked molds, from which to mold an orthotic for the patient. (col. 14; line 49) Therefore, claim 48 is patentable over the cited prior art.

Claims 49-51

Claims 49-51 depend from claim 48. The limitations that they add to claim 48 distinguish them further from the prior art. Therefore, claims 49-51 also are patentable.

The application should now be in condition for allowance, and allowance is requested.

Respectfully submitted,

Mitchell Rose

Mitchell Rose, Patent Agent
Registration No. 47,906
JONES DAY
901 Lakeside Ave.
Cleveland, OH 44114
(216)586-7094

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